Data Sheet

We make sure



AMILO Notebook Xi 3650 The art of entertainment

Issue December 2008

Version 4

Pages 6

Experience impressive entertainment, exciting new technologies, inspiring innovations and features unified in the AMILO Notebook X series.

Key Features

Processor technology

■ Latest Intel® Centrino® 2 processor technology with Intel® Core[™] 2 Duo processor for high-definition digital entertainment experience, blistering performance, longer-lasting battery life and the new wireless standard for connectivity

Operating System

■ Windows Vista® Home Premium

Innovation

- NVIDIA® GeForce® 9600M GT graphic card with 512 MB GDDR3 dedicated highspeed VRAM deliver the ultimate balance between mobility and performance for astounding HD playback capabilities combined with 3D features to enable visually-intense applications and games
- NVIDIA HybridPower[™] technology allows you to unleash graphics performance when you need it, or instantly switch gears to a lower power mode from the motherboard GPU for longer battery life and quieter operation. This reduces system power consumption dramatically and extends battery life by up to 25% longer

Reliability

- Spill-proof keyboard to protect your notebook against accidentially spilt liquids
 - Enough time to shut down the notebook
 - Have the liquid removed from the notebook
 - Protects your investment and your data
- Engineered in Germany means the test center in Germany tests conformity to international standards and customer-specific requirements
- A+ grade LCD panels for better picture quality

Ease of use

- Silent mode function that causes a noticeable reduction in fan noise
- Multimedia LightTouchTM bar and integrated Vista remote control let you easily play, stop or pause your DVDs or music CDs

Multimedia and Entertainment

- 18.4-inch HD+ or Full HD display with 16:9 aspect ratio and BrilliantView technology that provides vivid colors, amazing sharpness and impressive contrast
- The integrated AMILOcam (1.3 mega pixels) with low-light technology for great video quality even in low-light conditions and the built-in digital array microphone are perfect for Internet telephony (VoIP) and video chats
- Connect the AMILO Notebook Xi 3650 to an external display via HDMI (with HDCP support)

Options

- Integrated Blu-ray Disc[™] drive for the ultimate entertainment experience
- Dual hard disk drive with Raid 0/1 function
 - Raid 0 function: implements data striping to provide the best possible performance
 - Raid 1 function:defines disk mirroring for simultaneous writing of data on two disks, so if one drive becomes defect, all data can be accessed on the second drive







Model: Eclipse black







Operating system ¹ and Recovery Operating system	Genuine Windows Vista® Home Premium (32-bit version)
Operating system	Genuine Windows Vista® Home Fremium (32-bit Version)
Fujitsu Siemens Computers Recovery Program	Backup and restore the original status of the hard disk and create system restore disks
	or individual recovery media on CD or DVD are included
Product Design	
Color	Reveal white or eclipse black
Architecture	latel@ Ocatain a @ O accessorate also accessorate
System architecture Chipset	Intel® Centrino® 2 processor technology Intel® GM45 + ICH9M-Enhanced
Chipset	IIILEIW GIVIAS + ICH ISIVI-ETIIIAIICEU
Processors ¹	
Intel® Core™2 Duo processor	T5800 (2.0 GHz, 800 MHz FSB, 2 MB L2 cache) P7350 (2.0 GHz, 1066 MHz FSB, 3 MB L2 cache)
	P8400 (2.26 GHz, 1066 MHz FSB, 3 MB L2 cache)
	P8600 (2.4 GHz, 1066 MHz FSB, 3 MB L2 cache)
	T9400 (2.53 GHz, 1066 MHz FSB, 6 MB L2 cache)
Memory	2 SO-DIMM memory slots (no memory on board)
Memory speed	1066 MHz
Memory type	DDR 3 RAM
Memory modules Max. memory size ^{1, 2}	1024 or 2048 MB
Max. memory size	4096 MB
Drives	
Hard disk drive HDD type	SATA
HDD size	2.5-inch
HDD speed	5400 rpm
HDD cache	8 MB
HDD capacity ¹	250 or 320 GB with single HDD;
	500 (2x 250) or 640 (2x 320) GB with dual HDD
Option:	
HDD type	SATA
HDD size HDD speed	2.5-inch
HDD cache	4200 rpm 8 MB
HDD capacity	500 GB with single HDD;
, ,	1000 (2x 500) GB with dual HDD
Raid function (optional, if two HDDs are installed)	Raid 0: stripe set for performance
,	Raid 1: mirroring for security
	Raid off: two physical HDDs
Optical disc drive ¹ (built-in)	
ODD type	SATA
ODD technology	SuperMulti-format DVD burner with double layer (DL) support
ODD read speed	CD-ROM 24x, DVD-ROM 8x
ODD write speed	CD-R 24x, CD-RW 16x, DVD+R 8x, DVD-R 8x, DVD+RW 8x, DVD-RW 6x, DVD+R DL (8.5 GB) 4x, DVD-R DL (8.5 GB) 4x,
	DVD-RAM 5x
Blu-ray Disc™ (optional)¹	
ODD technology	Built-in Blu-ray Disc™ drive incl. SuperMulti-format DVD burner with
	double layer (DL) support
ODD read speed	BD 1.6x, CD-ROM 24x, DVD-ROM 8x
ODD write speed	CD-R 8x, CD-RW 8x, DVD+R 8x, DVD+RW 4x, DVD-R 8x, DVD-RW 4x,
	DVD+R DL (8.5 GB) 2.4x, DVD-R DL (8.5 GB) 2x, DVD RAM 5x

Display
Display type

PrilliantView LCD

Display type BrilliantView LCD with dual lamp (90% NTSC)

Aspect ratio 16:9
Resolution type Full HD
Display size 18.4-inch

Display resolution (intern) 1920 x 1080 pixels
Display resolution (extern) 1920 x 1200 pixels

Reaction time (typ.) 8 ms
Brightness (typ.) 300 NIT
Contrast (typ.) 800 :1

Compliance with standards ISO 13406-2 class II

Option¹

Display type BrilliantView LCD

Aspect ratio 16:9
Resolution type HD+

Display resolution (intern)

Display resolution (extern)

Reaction time (typ.)

Brightness (typ.)

Contrast (typ.)

1680 x 945 pixels
1920 x 1200

16 ms
200 NIT
600 :1

Compliance with standards ISO 13406-2 class II

Graphics

Dedicated graphics (full name)

NVIDIA® GeForce® 9600M GT

Dedicated video memory

Onboard graphics chip

Shared video memory³

NVIDIA® GeForce® 9600M GT

512 MB GDDR3, 1066 MHz

Mobile Intel® Graphics Media Accelerator 4500MHD

Up to 1295 MB (depending on installed main memory)

3D Benchmark 2006 Up to 5044 (depending on configuration)
Graphic features ■ NVIDIA® HybridPower™ technology (hybrid graphic technology)

■ NVIDIA® PureVideo® HD technology

■ DirectX® 10 support

Interfaces

Video 1x HDMI (1.3) (incl. HDCP and S/PDIF out), 1x VGA

Audio Front: 1x line in, 1x microphone in, 1x line out /headphone out,

Side: 1x line out / S/PDIF out

Network 1x LAN (RJ-45)

Data 1x eSATA combined with USB 2.0, 3x USB 2.0,

1x IEEE1394 (FireWire™), 1x CIR, 1x ExpressCard slot (54 / 34 mm),

1x 15-in-1 card reader4

SD, miniSD, MicroSD, SDHC,

MS, MS-Duo,

MMC, RS-MMC, MMC-Micro,

MSPRO, MS-PRO Duo, MS-Pro HG, MS-Pro HG Duo, M2,

xD picture card

Power supply 1x DC-in

Communication

Integrated Bluetooth® 2

LAN (Local Area Network) Gigabit Ethernet LAN (10 / 100 / 1000 Mbps)

Built-in WLAN (Wireless Local Area Network)

WLAN brand name

Yes

Intel® WiFi Link 5100 AGN

WLAN brand name
WLAN type
WLAN max. data rate

WLAN encryption WEP, WPA and WPA2

For use in BE, CH, DK, DE, EE, FI, FR, EL, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO,

draft-n 802.11a/g/n

up to 300 Mbps

PL, AT, PT, SE, SK, ES, CZ, HU, UK, CY

Multimedia	Owner of high definition and for O/DDIF and so the idea of A absence he
Audio	Support of high-definition audio for S/PDIF output with up to 7.1 channels;
Audio ohio	7.1 audio support also via 4x audio jacks (analog)
Audio chip	Realtek ALC888
Speakers Microphone	2x built-in speakers (2 W each) Built-in digital array microphone
Subwoofer	1x built-in subwoofer (3 W)
	Sound volume control via function key or via LightTouch™ bar
Input device	Sound volume control via function key of via Light fouch bar
AMILOcam	
Image sensor	1.3 mega pixels webcam
Frames per second	30^5
Features	Powered by Logitech®
	Auto focus
	Automatic brightness adjustment with status LED (blue: on, red:
	streaming / application on)
	 Low-light technology for great video-quality even in dark
	surrounding
Input devices / Control buttons	Located left of the discriberary book limbted
Power button	Located left of the keyboard, back lighted
Keyboard	Spill-proof keyboard with 85 keys, 21 key number block
Reyboard	Spill-proof Reyboard With 65 Reys, 21 Rey Humber block
Touchpad	Hidden touchpad, with left and right mouse button,
Todonpad	touchpad disable function via function key combination (Fn+F6)
	(, , , , , , , , , , , , , , , , , , ,
Multimedia keys	Multimedia LightTouch™ bar located on top of the keyboard to launch the
Multimedia Reys	following applications:
	 Silent mode (reduce noise level / fan speed, by reducing the CPU
	performance, office applications, Internet and DVD playback are not
	affected)
	 Hybrid graphics to switch between onboard graphics for extended
	battery runtime and external graphics for better performance
	■ DVD playback
	■ Skip rewind
	■ Play / pause
	Skip forward
	■ Volume control
Remote Control	26-key Vista remote control, shipped in ExpressCard slot
Remote Control	20-key vista remote control, shipped in Expressorid slot
Hot keys	The following hot keys or key combinations are available
	■ Fn+F1 WLAN / BT on / off
	■ Fn+F2 TV-tuner on / off (depends on configuration)
	■ Fn+F3 Mute on / off
	■ Fn+F4 Volume down
	■ Fn+F5 Volume up
	■ Fn+F6 Touchpad on / off
	■ Fn+F7 AMILOcam on / off
	■ Fn+F8 Brightness down
	■ Fn+F9 Brightness up
	■ Fn+F10 Display switch
	■ Fn+F11 Silent mode
	■ Fn+F12 Suspend
	N. J. H. J.
	Number block
	4 individually configurable quick-start application buttons (A1, A2, A3, A4)
Status indicators	The notehook has 3 status I EDs:
Status indicators	The notebook has 3 status LEDs:
	Power status (& suspend)
	Blue (always on): on; Blue blinking: stand by; None: off
	■ Battery charge
	Blue (always on): full; Blue blinking: charging;
	Red blinking: < 10 % capacity WLAN / Bluetooth®
	Blue: on; None: off
	Diue. Oii, Nolie. Oii

0	
Security	V
Supervisor and user password	Yes
Kensington lock	Yes
Lid switch (hidden)	Yes
ACPI functions	ACPI 3.0 compliant for Vista requirement
	Power on stand by (S1 LCD off)
	Stand by / energy saving mode (S3 save to RAM)
	■ Hibernate mode (S4 save to disk)
	■ Off mode (S5 soft off)
Power System	
Battery ⁶	
Battery type ¹	Lithium-Ion battery
	8 cells, 14.8 V / 2400 mAh (cell) / 4800 mAh (pack)
Battery runtime (idle mode) ⁷	Onboard graphics: up to 4.7 hours
	Dedicated graphics: up to 3.6 hours
Battery runtime (DVD playback) ⁸	Onboard graphics: up to 3.1 hours
battery runtime (DVD playback)	Dedicated graphics: up to 2.7 hours
Dottory oborging time (idla da)9	
Battery charging time (idle mode) ⁹	Onboard graphics / dedicated graphics (charging 90%): up to 2.1 hours
Battery charging time (maximum active mode) ¹⁰	Onboard graphics (charging 90%): up to 2.2 hours
	Dedicated graphics (charging 90%): up to 2.5 hours
Battery charging time (normal use) ¹¹	Onboard graphics (charging 90%): up to 2.1 hours
	Dedicated graphics (charging 90%): up to 2.05 hours
Battery charging time (off mode)	Onboard graphics (charging 90%): up to 2.15 hours
	Dedicated graphics (charging 90%): up to 2.1 hours
AC Adapter	Dynamic charge supported, ACPI 3.0 supported
Wide Range AC adapter	110 - 240 V AC, 50 - 60 Hz
Output	90 W with 20 V DC, 4.5 A
Output	90 W WIII 20 V DC, 4.3 A
Energy consumption	
S0 (idle mode)	Onboard graphics: 11.15 W; Dedicated graphics: 17.30 W
S0 (max. active mode) ¹²	Onboard graphics: 58.59 W; Dedicated graphics: 84.14 W
S3 (stand by / energy saving mode)	Onboard graphics: 2.05 W; Dedicated graphics: 1.56 W
S4 (hibernate)	Onboard graphics/Dedicated graphics: 0.51 W
S5 (off mode)	Onboard graphics/Dedicated graphics: 0.36 W
os (on mode)	Onboard graphics/Dedicated graphics. 0.50 W
Noise emission	07.0 IDA / 11. / 1. / 10
Idle mode ¹³	27.8 dBA (silent mode off)
Maximum active mode ¹⁴	28.3 dBA (silent mode off)
Operating conditions	
Operational	5 °C to 35 °C (ambient temperature)
	10 % to 90 % relative humidity, non-condensing
Dimensions and weight	
W x D x H	438 x 294 x 43.5 (front) / 50.5 (back) mm
Weight	3.9 kg ¹⁵
Certifications	GOST (WLAN)
	CE Marking
	R&TTE (WLAN, Bluetooth®)

Application Software Home office Microsoft® Works Microsoft® Office Home and Student Trial Adobe Reader Windows Mail (within Vista operating system) Windows Calendar (within Vista operating system) Multimedia Nero Essentials S (CD / DVD write software) Vista DVD Playback Pack (DVD playback software) Windows Media Player (within Vista operating system) Windows Media Center (within Windows Vista® Home Premium operating system) Logitech® QuickCam® application software Optional¹ CyberLink Power DVD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive) Internet Microsoft® Internet Explorer Country specific Internet provider Security Norman security software solution Accessories Included AC adapter 90 W First Battery 8 cells Integrated remote control Optional Find out more: www.fujitsu-siemens.com/accessories Manuals Manual (on hard disk), quick start guide, safety guide, warranty guide, recovery guide

Updates downloadable at http://www.fujitsu-siemens.com

Drivers

The configuration described in this document is generic only and non-binding. For the exact configuration of your AMILO, please contact your licensed dealer.

Company stamp

Depending on exact configuration. Please check at your local retailer

² DISCLAIMER: Up to 1 GB may not be available with 32-bit operating systems due to system resource requirements if system is preinstalled with 4096 MB RAM

³ Shared video memory size may vary depending on configuration. Used video memory size depends on Microsoft® Windows Vista® memory management

^{- 1024} MB system memory enables up to 271 MB shared memory

^{- 2048} MB system memory enables up to 783 MB shared memory

^{- 3072} MB system memory enables up to 1295 MB shared memory

^{- 4096} MB system memory enables up to 1295 MB shared memory

⁴ An adapter is needed for the following card formats: RS-MMC, MMC-Micro, miniSD, MicroSD, SDHC, MS-Duo, MS-PRO Duo, MS-Pro HG, MS-Pro HG Duo, M2

⁵ AMILOcam frame rate can vary significantly depending on the used software application

⁶ DISCLAIMER: Battery life may vary depending on product model, configuration, applications, power management settings and features utilized. Recharge time varies depending on usage. The recharge capacity may decrease after some months so that the battery lifetime as well as operating time can not be assured for the whole lifetime of the notebook

⁷ Tested with Battery Mark 4.0.1 ("power saver mode")

⁸ DVD playback tested with Vista DVD playback

⁹ Tested without test program

¹⁰ Tested with 3DMark 2006

¹¹ DVD playback tested with Vista DVD playback

¹² Tested with 3DMark 2006

¹³ Tested according to ISO 7779 and ISO 9296

¹⁴ Tested with QAFE 8.01 / 2. sieve.exe (CPU stress test) / Diskload.exe according to ISO 7779 and ISO 9296

¹⁵ Weight may vary depending on actual configuration